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DESCRIPTION OF A NEW ARMADILLO, WITH REMARKS ON THE GENUS MULETIA GRAY.

BY SAMUEL N. RHOADS.

Tatusia (Muletia) propalatum Rhoads, sp. nov., Type No. 3349, Col. Acad. Nat. Sci. Phila., juv. ad. ♀. "Bahia, Brazil, E. D. Cope."

Size smaller than *T. hybrida* Desm., with relatively longer and more slender tail, equalling length of body. Free rings of tail, excluding basal superior half-ring and subterminal attached ring, 10. The last, with remaining distal portion of tail, measuring one-third total length of tail. Posterior edges of caudal rings flaring, giving the tail a roughly serrate outline. Distal end of tail very slender, pointed, the tesseræ diamond shaped. Basal tail rings with double row of tesseræ, the basal row becoming relatively shorter nearest body while on the last (distal) rings the tesseræ of both rows are of equal length in each ring. Rows of tesseræ on pelvic shield, counted near border and including the wide anterior semi-free ring, 22. Free dorsal rings, 7, preceded anteriorly by wide posterior ring of shoulder-shield of tesseræ similar in formation to dorsal rings. Larger tesseræ of free dorsal rings slender, wedge shaped, their posterior corners scarcely divided by the points of slender awl-shaped intervening tesseræ, the bases of latter, half the width of ends of former. Rows of tesseræ on shoulder-shield counted near border, 17, similar in arrangement of tesseræ to those of pelvic shield. Ears five-eighths length of head, finely scaled and set close together at base. Crescentine coronal shield separated by a freely moving nexus of skin from frontal cephalic shield. Three distinct rows of tesseræ before and beneath the eye. Frontal tesseræ relatively smaller than in other species of *Tatusidæ.* Manus 4-toed, pes 5-toed. From each papilla of protected lower parts springs a short, slender bristling hair of same color as skin, averaging one-fourth inch in length. Skin yellowish white. Upper parts and tail amber yellowish, nose and ears near tips brownish, the toes of same color.

Skull slenderly and regularly pyriform. Zygomatic width not exceeding the mastoid, tapering regularly to the rostrum. Greatest depth of cranium over two-thirds its greatest width. Interorbital width over two-thirds zygomatic width, the frontals nearly obscuring the orbital fossa as viewed from above. Lachrymals triangular, lateral, not visible from above, their anterior apices overlying second posterior upper grinder. Roof of mouth deeply grooved. Palatal bones slightly hollowed centrally but without posterior raised edges. Pterygoids rounded, divided by a slit 1 mm. wide their entire length, reaching a slight postpalatal notch. Palatal bones anteriorly reaching beyond anterior base of last upper molar. Upper molar series 6 on a side: no indication of a seventh, on dissection. Lower molar series 8 on a side, including a minute thread-like anterior premolar, evidently deciduous and widely separated from the next. Coronoid process of mandible long and very slender.

Measurements.—Body, along back, from fore end of shoulder shield to root of tail, 115*; head and neck, from tip of nose to shoulder shield (above) 58; hind foot, 40; ear, from crown 29, its greatest width (flattened) 19. Skull; occipito-nasal length, 48; zygomatic breadth, 21; interorbital constriction, 15; length of nasals, 15; basal length of upper molar series, 11; length of mandible, 34.

The type specimen is about two-thirds of the maximum development, judging by a series of skins and skulls of *T. novemcincta*. *Tatusia* (*Muletia*) *hybrida* is the only described species with which it must be compared. From *hybrida* in the Academy's collection it is distinguished by: 1 seven free dorsal bands; 2 longer slender-pointed tail; 3 comparative number of shoulder and pelvic girdle rows; 4 absolute number of free caudal rings; 5 greater relative length of ears; 6 much greater relative depth to width of cranium; 7 much greater relative interorbital width; 8 separation (lateral) of the pterygoids; 9 palatine bones reaching beyond anterior base of last upper molar (in *hybrida* they fall short of the molar series 1 mm.); 10 coronoid process slender from base to tip, (not triangular).

Dr. J. E. Gray in the Proceedings of the London Zoological Society, 1874, page 244, redescribes the Short-tailed Armadillo, *Tatusia hybrida* (Desm.), and places it in a new genus, which he calls *Muletia*, separating it from *Tatusia* in the following diagnosis:

"1 *Tatusia*. Tail cylindrical, elongate, as long or longer than the body, of many rings and numerous caudal vertebræ. Ears large. Dorsal disk with 9–7 free bands. *Tatusia peba* &c."

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* Millimeters.

"2. *Muletia.*—Tail short, depressed at base, not so long as the body, with thirteen rings and thirteen caudal vertebræ. Ears small, dorsal disk with six free bands. *Muletia septemcincta* &c."

As above characterized, Dr. Gray's new genus is a fair sample of more than half the new genera proposed by him! No very careful examination will show that the two species which he makes typical of these genera share equally some of the characters assigned as distinctive, while those given which are distinct are of doubtful generic or subgeneric value. The number of free dorsal bands above is doubtfully of more than specific value between the numbers 10 and 6. *Tatusia novemcincta* has from 8 to 10. Desmarest says that "*Dasypus hybridus*" has "six ou sept bandes mobiles á la cuirasse."

However, in making an examination of the specimen above described as new, I was struck to find in it not only a superficial resemblance to *T. hybrida* as compared with *T. peba,* but that it agreed with Dr. Gray's figure of *hybrida* (l. c. Pl. XLI) in having only twelve upper teeth as against the fourteen or sixteen always present in *T. novemcincta.* To convince myself of the constancy of this character I have examined several skulls of both species and found no exception. In all the other plates of the various newly described *Tatusinæ* I have seen, in no case are they represented with less than fourteen upper teeth.

Should a more exhaustive examination show no exceptions, it would be proper to at least accord subgeneric rank to *Muletia,* with the following diagnosis :

Genus TATUSIA.

Tail longer than body, its first basal ring complete, the distal two-thirds with a well-defined inferior median canal, increasing in depth with age, and in number to three and five near the extremity. Caudal rings convex, each closely compressed posteriorly upon the next. Dorsal disk with eight to ten free bands; upper molars, fourteen to sixteen; lower molars, ditto. Type *Tatusia novemcincta* (Linn.) Cuv.

Subgenus MULETIA.

Tail not exceeding length of body, not channeled distally. Caudal rings with free, elevated posterior margins, the first basal segment a crescentine half-ring, clasping the superior anterior portion of second ring, the latter being produced forward beneath it. Dorsal disk with six to seven free bands; upper molars, twelve; lower molars, fourteen to sixteen. Type *Tatusia* (*Muletia*) *hybrida* (Desm.) Gray.

The nine-banded Armadillo, *Dasypus novemcinctus* Linnæus, Syst. Nat., 1758, 51, has quite generally gone under the specific name *peba* of Desmarest, (Mamm. 1820, 368), who puts the *septemcinctus, octocinctus* and *novemcinctus* of Linnæus, Erxleben and Boddaert among his synonyms, implying that these are composite species and indistinguishable. The use of Desmarest's name *peba* is unwarranted, the original Linnæan description and references relating, in the main, unmistakably to the same animal. The first reference to *peba* (Seba Mus. I, p. 45, tab. 29, Fig. 1), is unmistakably the nine-banded species; see also his reference to Marcgrave.

Dr. Gray (sup. cit. pp. 245, 246), discusses the identity and synonymy of *Tatusia hybrida* (Desm.), and names it *T. septemcincta* after Schreber (Säugt., 1775, II, 220), who there describes a species which he considers the same as Linnæus' *Dasypus* of the same name, quoting the Systema Naturæ, 12th edition, in which it is the same as in the 10th. In these Linnæus describes a "*Dasypus*"—"D. cingulis septenis, palmis tetradactylis, * * * Habitat in Indiis." Schreber's description and figure fairly represent what Dr. Gray chooses to call "*Muletia septemcincta*," but as this specific name was first applied by Linnæus to an unrecognizable Armadillo *from India* it is inapplicable to a six-banded Armadillo from South America.

Desmarest's *Dasypus hybridus* is the first indisputable name for a short-tailed, six or seven-banded *Tatusia* from tropical America. Dr. Gray's disgust at the barbarous name of *hybridus*, by which Desmarest probably referred less to the animal's pedigree than to its asinine ears, seems utterly inconsistent with the naming of his new genus. As such, however, it may nominally be allowed to stand, not only as a warning to the future namer of names, but in the interests of an overburdened synonymy.